



**UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

08/984,560 12/03/97 MAILLOUX

J 95-0653.01

021186  
SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH  
P.O. BOX 2938  
MINNEAPOLIS MN 55402

TM02/0814

EXAMINER

KIM.H

ART UNIT

PAPER NUMBER

2185

DATE MAILED:

08/14/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.

08/984,560

Applicant(s)

Mailoux et al

Examiner

H. Kim

Group Art Unit

2185

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

## Period for Response

A SHORTENED STATUTORY PERIOD FOR RESPONSE IS SET TO EXPIRE 3 (Three) MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a response be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for response is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to respond within the set or extended period for response will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

## Status

- ☒ Responsive to communication(s) filed on amendment to 5/17/01.
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 1 1; 453 O.G. 213.

## Disposition of Claims

- ☒ Claim(s) 11-21 + 59-71 is/are pending in the application.
- ☐ Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 11-21 + 59-71 is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been received.
- ☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.
- ☐ received in this national stage application from the International Bureau (PCT Rule 1 7.2(a)).

\*Certified copies not received: \_\_\_\_\_

## Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_
- ☒ Notice of References Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other \_\_\_\_\_

Office Action Summary

### Detailed Action

1. Claims 11-21 and 59-61 are presented for examination. This office action is in response to the amendment filed on 5/17/01.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 USC § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

3. Claims 11-21 and 59-61 are rejected under 35 USC 102(b) as being anticipated by *Manning*, U.S. Patent 5,610,864.

As to claim 11, *Manning* discloses the invention as claimed. *Manning* discloses a storage device comprising: control logic (Fig. 1 Ref. 38 and col. 6 lines 26-32) for between a patternless addressing scheme (col. 5 lines 43-50) and a patterned addressing scheme (col. 6 lines 14-26 and col. 7 lines 43-54) and switching circuit for switching between a first pathway and a second pathway (Fig. 1 Ref. 38 and col. 5 lines 43-50, col. 6 lines 14-32 & col. 7 lines 43-54).

As to claim 12, Manning further discloses the storage device is asynchronous (Fig. 1 and EDO constitutes asynchronous memory, col. 4 line 17).

As to claim 13, Manning further discloses temporary buffer (Fig. 1 Refs. 18 and 34).

As to claim 14, Manning further discloses the external address is temporarily stored in the temporary storage device prior to being sent to a decoder (Fig. 1 Refs. 12 and 30).

As to claim 15, Manning further discloses counter (Fig. 1 Ref 26).

As to claim 16, Manning further discloses the internal address is provided to temp storage device through the switching circuitry (Fig. 1 Refs. 38, 40, 26, 34).

As to claim 17, Manning further discloses a pipeline mode (col. 5 lines 43-50).

As to claim 18, Manning further discloses a burst mode (col. 7 lines 28+).

As to claim 19, Manning further discloses muxes (Fig. 5 Refs. 58, 61 and 66).

As to claim 20, Manning further discloses patternless addressing scheme is for random

CAS (col. 5 lines 43-50) and the patterned addressing scheme is for sequence CAS (col. 6 lines 14-26 and col. 7 lines 43-54).

As to claim 21, Manning further the sequence CAS is selected from a group consisting of interleaved (col. 4 lines 56-57) and linear column address access (col. 4 line 56).

As to claims 59 and 60, Manning discloses the invention as claimed. Manning discloses a memory device, comprising:

a memory array (Fig. 1 Ref. 12);

control logic operatively connected to the memory array, the control circuit for selecting between an unpatterned pipeline (col. 5 lines 43-50) and a patterned burst data pattern (col. 6 lines 14-26 and col. 7 lines 43-54) for accessing the memory array; and

switching circuit for switching between a first, burst data pathway and a second, pipeline data pathway depending on which of the burst or pipeline modes of operation is selected (Fig. 1 Ref. 38 and col. 5 lines 43-50, col. 6 lines 14-32 & col. 7 lines 43-54).

As to claim 61, Manning discloses the invention as claimed above. Manning further discloses a column address decoder for receiving an external column address (Fig. 1 Ref. 30).

As to claim 62, Manning discloses the invention as claimed above. Manning further

discloses a counter (Fig. 1 Ref. 26) and switching circuit for switching between a first pathway and a second pathway depending on which of the patternless addressing scheme or patterned addressing scheme is selected (Fig. 1 Ref. 38 and col. 5 lines 43-50, col. 6 lines 14-32 & col. 7 lines 43-54), wherein the first pathway and the second pathway are coupled to a temporary storage device for providing at least one external address (Fig. 1 Ref. 16) to the switching circuitry, and wherein the counter is coupled to the temporary storage device to receive a selected portion of the external address for generating an internal address (col. 8 line 45).

As to claim 63, Manning discloses the invention as claimed above. Manning further discloses the internal address is provided to the temporary storage device through the switching circuitry (Fig. 1 Refs. 18 and 26).

As to claim 64, Manning discloses the invention as claimed above. Manning further discloses the patternless addressing scheme provides a pipeline extended data out pattern (col. 5 lines 43-50).

As to claim 65, Manning discloses the invention as claimed. Manning discloses a storage device, comprising:  
control logic for selecting between a patternless addressing scheme (col. 5 lines 43-50) and a patterned addressing scheme (col. 6 lines 14-26 and col. 7 lines 43-54); and

switching circuit for switching between a first pathway and a second pathway depending on which of the patternless addressing scheme or patterned addressing scheme is selected (Fig. 1 Ref. 38 and col. 5 lines 43-50, col. 6 lines 14-32 & col. 7 lines 43-54), wherein the patternless addressing scheme provides a pipelined extended data out pattern (col. 5 lines 43-50).

As to claim 66, Manning discloses the invention as claimed above. Manning further discloses the patterned addressing scheme provide a burst extended data out pattern (col. 6 lines 14-26 and col. 7 lines 43-54)

As to claim 67, Manning further discloses at least one multiplexed device (Fig. 5 Refs. 58, 61 and 66).

As to claim 68, Manning discloses the invention as claimed. Manning discloses a storage device, comprising:  
control logic for selecting between a patternless addressing scheme (col. 5 lines 43-50) and a patterned addressing scheme (col. 6 lines 14-26 and col. 7 lines 43-54); and  
switching circuit for switching between a first pathway and a second pathway depending on which of the patternless addressing scheme or patterned addressing scheme is selected (Fig. 1 Ref. 38 and col. 5 lines 43-50, col. 6 lines 14-32 & col. 7 lines 43-54), wherein the patterned addressing scheme provide a burst extended data out pattern (col. 6 lines 14-26 and col. 7 lines 43-54).

As to claim 69, Manning further discloses at least one multiplexed device (Fig. 5 Refs. 58, 61 and 66).

As to claim 70, Manning discloses the invention as claimed. Manning discloses a memory device, comprising:

a memory array (Fig. 1 Ref. 12) operable in a burst or a pipelined mode of operation (col. 6 lines 14-26, col. 7 lines 43-54, and col. 5 lines 43-50);

control logic for selecting between a the pipeline mode of operation (col. 5 lines 43-50) and the burst mode of operation (col. 6 lines 14-26 and col. 7 lines 43-54); and

switching circuit for switching between a first, burst data pathway and a second, pipeline data pathway depending on which of the burst or pipeline modes of operation is selected (Fig. 1 Ref. 38 and col. 5 lines 43-50, col. 6 lines 14-32 & col. 7 lines 43-54), wherein the first pathway and the second pathway are coupled to a temporary storage device for providing at least one external address (Fig. 1 Ref. 16) to the switching circuitry.

### *Conclusion*

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.



5. A shortened statutory period for response to this action is set to expire 3 (three) months and 0 (zero) days from the mail date of this letter. Failure to respond within the period for response will result in **ABANDONMENT** of the application (see 35 USC 133, MPEP 710.02, 710.02(b)).

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

7. When responding to the office action, Applicant is advised to clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. He or she must also show how the amendments avoid such references or objections. See 37 C.F.R. § 1.111(c).

8. When responding to the office action, Applicants are advised to provide the examiner with the line numbers and page numbers in the application and/or references cited to assist examiner to

locate the appropriate paragraphs.

9. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Hong Kim whose telephone number is (703) 305-3835. The Examiner can normally be reached on the weekdays from 8:30 AM to 5:00 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Do Yoo, can be reached on (703) 308-4908.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

10. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

(703) 308-6296 or (703) 308-6165

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

HK  
Patent Examiner  
August 10, 2001

